

## OVERVIEW

We have recently demonstrated the profound therapeutic efficacy of the potent broadly neutralizing mAb PGT121 in rhesus monkeys chronically infected with SHIV-SF162P3. In particular, we showed that PGT121, both alone and in combination with other mAbs, resulted in a rapid and precipitous decline of plasma viremia, as well as reduced proviral DNA in lymph nodes and gastrointestinal mucosa.

Based on these data, we propose to evaluate the therapeutic efficacy of PGT121 in HIV-1-infected humans and to conduct proof-of-concept studies in rhesus monkeys. We hypothesize that PGT121, either alone or in combination with other mAbs, will result in virologic suppression in both peripheral blood and tissues. We further hypothesize that PGT121 in conjunction with antiretroviral therapy (ART) and reservoir activators may reduce viral reservoirs that persist with ART alone and may prove useful in HIV-1 eradication strategies.

The Primary Outcome of this project is to determine the proof-of-concept therapeutic efficacy of PGT121 in HIV-1-infected humans and to define an optimal mAb cocktail for further clinical development.

This consortium is led by Dr. Dan Barouch and includes researchers from Beth Israel Deaconess Medical Center (BIDMC), the Ragon Institute, the Scripps Research Institute, Theraclone Sciences, Gilead Sciences, and IAVI. The origin award was in July, 2014, with a subsequent supplement to manufacture PGDM1400 for clinical testing.

## RESEARCH OBJECTIVES

- 1.) To conduct key preclinical studies in nonhuman primates to inform the clinical development program;
- 2.) To manufacture clinical-grade PGT121 and to conduct preclinical toxicology studies;
- 3.) To conduct phase I clinical trials to assess the therapeutic efficacy of PGT121 in humans; and
- 4.) To provide administrative and programmatic support for this program.

## Grant at a Glance

### Principal Investigator

Dan H. Barouch, MD, PhD



### Grantee Institution

Beth Israel Deaconess Medical Center, Boston, USA

### Project Title

Therapeutic Efficacy of Potent Broadly Neutralizing mAbs for HIV-1 Eradication

### OPPID

1107669

### Grant Award

Up to \$25 million, awarded in July, 2014

### Collaborating Institutions

- ◇ Ragon Institute
- ◇ The Scripps Research Institute
- ◇ Theraclone Sciences
- ◇ Gilead Sciences
- ◇ IAVI